

FIGURE 1

bitterbush_[SIN_2]
soybean_[SIN_8]
borage_[gi_2062403]
corn_[SIN_4]
wheat_[SIN_10]
wheat_[gi_4104056]
soybean_[SIN_6]
sunflower_[gi_1040729]

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MEEPK-----KHISQADLAKHKQPGDLWISIKKVKYDISKW
M-----EVVEKEK-----KYITSEELKGNKEGDLWISIQKVVYNSDW
MA-----A-----QIK-----KYITSDELKNHDKPGDLWISIQKAYDVS
MP-----PSVDAMPAPGDAAGDVRMISSELRAHASADDLWISISGDVYDVT
MARTGLADATAPEADAMPASK--DAADVMISTKELQAHAAADDLWISISGDVYDVT
MARTGLADATAPEADAMPASK--DAADVMISTKELQAHAAADDLWISISGDVYDVT
LP-----A-----
MV-----SPSIEVLNSIADGK-----KYITSKELKHNPNNDLWISILKVVYNVTEW

TKEHPGELPLLSFAGQDVTDAFIAYHPGTAWQYLDREFFTYGVYQDYSVSEMSKDYRRLV
VKEHPGGDVPISNLAGQDVTDAFIAYHPGTAWSHLEKFFTYGHLSDFKVSEVSKDYRKL
VKDHPGGSFPLKSLAQEVTDAFVAFHPASTWKNLDFKFTGYLKYDYSVSEVSKDYRKL
LPHHPGGDLPLLTLAGQDATDAFAAYHPPSARPLLRFFVGR-RLSDYAVSPASADYRRL
LRHHPGGEVPLITLAGQDATDAFMAYHPPSVRPLLRFFVGR-RLSDYVPPASADYRRL
LRHHPGGEVPLITLAGQDATDAFMAYHPPSVRPLLRFFVGR-RLSDYVPPASADYRRL
-----FSTSHRLSDHTVSAASSDYRKL
AKEHPGGDAPLINLAGQDVTDAFIAYHPGTAWKHLDKLFTGYHLKDYQVSDISRDRYRKL

SEFSKMGFLKTPGKGVYCSIFFVSVLFFALSVYGVLYCKSTWAHLCSGLLMGLMLWLSQGWV
SEFSKLGFLDFTKGHVTSCTLASAVMFLIPLYGVLRCTSVWAHLGSGMLLGLLWMQSAVY
FEFSKMGLYDKKGHIMFATLFCFIAMLFAMSVYGVLFCEGLVHLFSGCLMGFLWIQSGWI
AQLSSAGLFEVGPVTPKQVLMVAVLYAALYLVLACASAWAHLLAGGLIGFVWIQSGWM
AQLSSAGLFEVGHVTPKFLVAMSVLFCIALYCVLACSSSTGAHMFAGGLIGFIWIQSGWI
AQLSSAGLFEVGHVTPKFLVAMSVLFCIALYCVLACSSSTGAHMFAGGLIGFIWIQSGWI
SDLNALNLFNRKGHVTSIILLSLITLFPVSVCGVLFSDSTFVHVLVSAALIGFLWIQSGWI
SEFAKAGMFEKKGHVYISLFCVSLLSACVYGVLYSGSFWIHMLSGAILGLAMMQIAYL

FIGURE 1

bitterbush_[SIN_2]	GHDSCHYQVMPNRKLNRLFQIIAGNVIAGVSVAVWVKLDHNTTHFACNSANLDPDIQHLPI
soybean_[SIN_8]	GHDSGHYVVMVTNGFNKVAQILSGNCLTGISIAWKKWTHNAHHIACNSLDHDPDLQHMPV
borage_[gi_2062403]	GHDAGHYMVVSDSRLNKFMGIFAANCLSGISIGWKKWNHNAHHIACNSLEYDPLQYIFP
corn_[SIN_4]	GHDSGHRITGHPVLDREVQVLSGNCLTGLSIAWKKCNHNTTHIACNSLDHDPDLQHMPV
wheat_[SIN_10]	GHDSGHHQITRHPALNRLQLQVVSNGNCLTGLGIAWKKFNHNTTHIACNSLDHDPDLQHLPL
wheat_[gi_4104056]	GHDSGHHQITRHPALNRLQLQVVSNGNCLTGLGIAWKKFNHNTTHIACNSLDHDPDLQHLPL
soybean_[SIN_6]	GHDSGHYNVMSRRLNRAIQIILSGNILAGISIGWKKWNHNAHHIACNSLDYDPLQHMMPV
sunflower_[gi_1040729]	GHDAGHYQMMATRGNKFAFIGNCLTGLSIAWKKWTHNAHHIACNSLDYDPLQHLPLM
bitterbush_[SIN_2]	IAISPKFFNSLTSYHNCKMITYDRAARFFVFSQHWTFYPALLSVRLYLFIILSFKVVFSNN
soybean_[SIN_8]	FAVSSRFFNSITSHFYGKLEFDEFIARFLICYQHFTFYPVMCVARVNLYLQTIILLFSR-
borage_[gi_2062403]	LVSSKFFGSLTSHFYEKRLTFDSLSRFFVSYQHWTFFYPIMCAARLNMYVQSLIMLLTK-
corn_[SIN_4]	FAVSPKLFGNISYFYQRTLAFDAASKFFISYQHWTFFYPVMCIARINLLAQSALEVLTE-
wheat_[SIN_10]	FAVSTKLFNNLWSVCYERTLAFDAISKFFVSYQHWTFFYPVMGFARINLLVQSIIVFLITQ-
wheat_[gi_4104056]	FAVSTKLFNNLWSVCYERTLAFDAISKFFVSYQHWTFFYPVMGFARINLLVQSIIVFLITQ-
soybean_[SIN_6]	FAVSSRFFNSITSHXYGRKXEFDXIAXFLICYQHFTFYPVMCVARVNLYLQTIILLFSR-
sunflower_[gi_1040729]	LAVSSKLFNSITSVFYGRQLTFDPLARFFVSYQHYLYYPIMCVARVNLYLQTIILLLISK-
bitterbush_[SIN_2]	KRVYKRSQEIILGYAAFLTWYSLLSRLPNWPERVMYFTSCLAVAGFQHWQFSLNHFASNV
soybean_[SIN_8]	RKVQDRALNIMGILVFWTWFEPDLLVSVCLPNWPERVMFVLASFVCSIQHIQFCLNHFANV
borage_[gi_2062403]	RNVSYRAHELLGCLVFSIWYPLLVSCLPNWGERIMFVIAASLVTGMQQVQFSLNHFSSSV
corn_[SIN_4]	KRVPQRLLLEIAGVATFWAWYPLLVASLPNWVERVAFVLSFTICGQHVQFCLNHFSSDV
wheat_[SIN_10]	KKVRQRWLEIAGVAAFVWYPLLVSCLPNWVERVAFVLSFVITGQHVQFCLNHFSSAV
wheat_[gi_4104056]	KKVRQRWLEIAGVAAFVWYPLLVSCLPNWVERVAFVLSFVITGQHVQFCLNHFSSAV
soybean_[SIN_6]	XKVQDRALNIMGILVFWTWFELFLA-----LLFV-----PIQHIQFELNHLAENL
sunflower_[gi_1040729]	RKIPDRGLNILGTLIIFWTFWPLLVSRLPNWPERVAFVLSFCVGTGQHVQFCLNHFSGDV

FIGURE 1

bitterbush_[SIN_2] YTG LPSGNDWFHQQTGTLNITASAWDWFHGGGLHFQIEHHLFPRMPKCHFRKISPIVNK
 soybean_[SIN_8] YVGPPSGNDWFEKQTSGLTDISCASSMDWFFGGGLQFQLEHHLFPRLPRCQLRKISPLVSD
 borage_[gi_2062403] YVGKPKGNWFEKQTDGTLDISCPPWMDWFHGGGLQFQIEHHLFPKMPRCNLRKISPYVIE
 corn_[SIN_4] YVGPPKGNWFEKQTAGTLDILCSPWMDWFHGGGLQFQIEHHLFPRLPRCHLRKVVAVAVRD
 wheat_[SIN_10] YVGPPKGNWFERQTAGTLDIKCSPWMDWFHGGGLQFQVEHHLFPRLPRCHYRMVAPIVRD
 wheat_[gi_4104056] YVGPPKGNWFERQTAGTLDIKCSPWMDWFHGGGLQFQVEHHLFPRLPRCHYRMVAPIVRD
 soybean_[SIN_6] YXG-----
 sunflower_[gi_1040729] YVGPPKGNWFEKQTRGTIDACSSWMDWFFGGGLQFQLEHHLFPRLPRCHLRISIPICRE

bitterbush_[SIN_2] LCQKHNLSEYETATMWEANKMVSYTLRAVAMEAKDVTK-PVPKNMVWEAMNTEG
 soybean_[SIN_8] LCKKHNLPIYRSLSFWEANQWTIRTLRTAALQARDLTN-PAPKNLLWEAVNTHG
 borage_[gi_2062403] LCKKHNLPIYASFSKANEMTLRLRNTALQARDITK-PLPKNLVWEALHTHG
 corn_[SIN_4] LCKKHGLTYSAAATFWGANVLTWKTLRAAAALQARTATSGGAPKNLVWEAVNTHG
 wheat_[SIN_10] LCKKHGLSYGAATFWEANVMTWKTLRAAAALQAREATTGAAPKNLVWEALNTHG
 wheat_[gi_4104056] LCKKHGLSYGAATFWEANVMTWKTLRAAAALQAREATTGAAPKNLVWEALNTHG
 soybean_[SIN_6] -----
 sunflower_[gi_1040729] LCKKYNLPYVLSFYDANVTTLKTLRTAALQARDLTN-PAPQNLAWAEAFNTHG